



## **XPD900 Rev.3 (TPCB-3612-01) User Manual**

### **Installation Procedure**

FCC ID: IA9XPD900  
ISED ID: 1338B-XPD900

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## 1 Introduction

The XPD900 transceiver module is not sold separately as a stand-alone device. The module is a subassembly for use inside Cooper Industries (Electrical) Inc. host products.

This manual is for the use of Cooper Industries (Electrical) Inc. professionals to integrate the radio module into host products and maintain compliance.

## 2 Labeling Requirements

The statements provided in sections 2.1 and 2.2 shall be included in the user manual for a host device containing the XPD900 radio module.

### 2.1 FCC Part 15 Statement for Class A Devices

#### FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### 2.1.1 FCC RF Exposure Statement

***For a portable host device include this statement in the manual:***

##### FCC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

***For a mobile host device include this statement in the manual:***

##### FCC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

## 2.2 ISED Statement for Class A Devices

### ISED Non-Interference Disclaimer

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with the Canadian ICES-003 Class A specifications. CAN ICES-003(A) / NMB-003 (A).

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempt de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

### 2.2.1 ISED RF Exposure Statement

#### ***For a portable host device include this statement in the manual:***

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations ISED CNR-102 établies pour un environnement non contrôlé. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

#### ***For a mobile host device include this statement in the manual:***

##### ISED RF Exposure Statement

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the radiator and any part of your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations ISED CNR-102 établies pour un environnement non contrôlé. Une distance de séparation d'au moins 20 cm doivent être maintenue entre l'antenne de cet appareil et toutes les personnes. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

The following statement must be included in the host product manual:

## 2.2.2 RSS-Gen Transmit Antenna Statement

**For devices that have a removable antenna include the following statement in the user manual. Only one removable antenna is listed below for inclusion with this statement because the other approved antennas are not removable.**

### RSS-Gen Transmit Antenna Statement

This radio transmitter 1338B-XPD900 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio 1338B-XPD900 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Under Innovation, Science and Economic Development regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Innovation, Sciences et Développement économique Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Innovation, Sciences et Développement économique Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

#### Approved Antenna Types:

Antenna	Mfg. Part Number	Gain (dBi)	Type
Pulse Larsen	NMO3E900B NMOHFMID	5.4	5/8λ over 1/4 λ monopole whip

**NOTE: There are other approved antennas, however they are not included in this statement's table because they are not removable. See the antenna section for all approved antennas. Only the removable antenna is listed in this table.**

### 3 RF Exposure Information

This product is intended for mobile and portable installation applications.

#### 3.1 Mobile Applications

In order to comply with FCC and ISED RF exposure requirements, installation of this transmitter system's antennas for a mobile host device must be performed in a manner that will provide at least 20 cm of clearance from the antenna to any user or member of the public.

#### 3.2 Portable Applications

To comply with FCC and ISED RF exposure requirements, installation of this transmitter system's antenna in a portable host device must provide the required minimum user separation distance for each specific certified antenna that is listed in the "XPD 900 RF Exposure" document.

### 4 Certified Antenna

Antennas that are certified for use with the XPD900 Rev.3 (TPCB-3612-01) radio module are listed in the following table.

Antenna Reference	Antenna Mfg.	Mfg. Part Number	Antenna Type	Antenna Gain (dBi)	Antenna Connector Type	Antenna Trace Design Information		
						Host Product	Host PCB	Host BOM
1	Pulse Larsen	NMO3E900B NMOHFMID	5/8λ over 1/4 λ monopole whip	5.4	SMA with coaxial 6' cable.	N/A	N/A	N/A
3	Linx	ANT-916-uSP	1/4 λ monopole	0.3	SMT soldered on PCB	TD1141 Rev.4	FPCB- 4053R04	N/A
3	Linx	ANT-916-uSP	1/4 λ monopole	0.3	SMT soldered on PCB	TD3100 Rev.4	FPCB- 3875R04	N/A
4	Eaton/Cooper Industries (Electrical) Inc.	ACAB-2683-07	1/4 λ monopole	2.54	Soldered to PTH on PCB	R260 Rev.7	FPCB- 3375R07	900 MHz Rev. 7
4	Eaton/Cooper Industries (Electrical) Inc.	ACAB-2683-07	1/4 λ monopole	2.54	Soldered to PTH on PCB	R260 Rev.13	FPCB- 3375R13	900 MHz Rev. 13
4	Eaton/Cooper Industries (Electrical) Inc.	ACAB-2683-07	1/4 λ monopole	2.54	Soldered to PTH on PCB	R270 Rev.3	FPCB- 3958R03	900 MHz Rev. 3
4	Eaton/Cooper Industries (Electrical) Inc.	ACAB-2683-07	1/4 λ monopole	2.54	Soldered to PTH on PCB	R270 Rev.4	FPCB- 3958R04	900 MHz Rev. 4

**Table 1 Certified Antennas**